



FIG. 1 (PRIOR ART)

Current scan path cell and layer usage

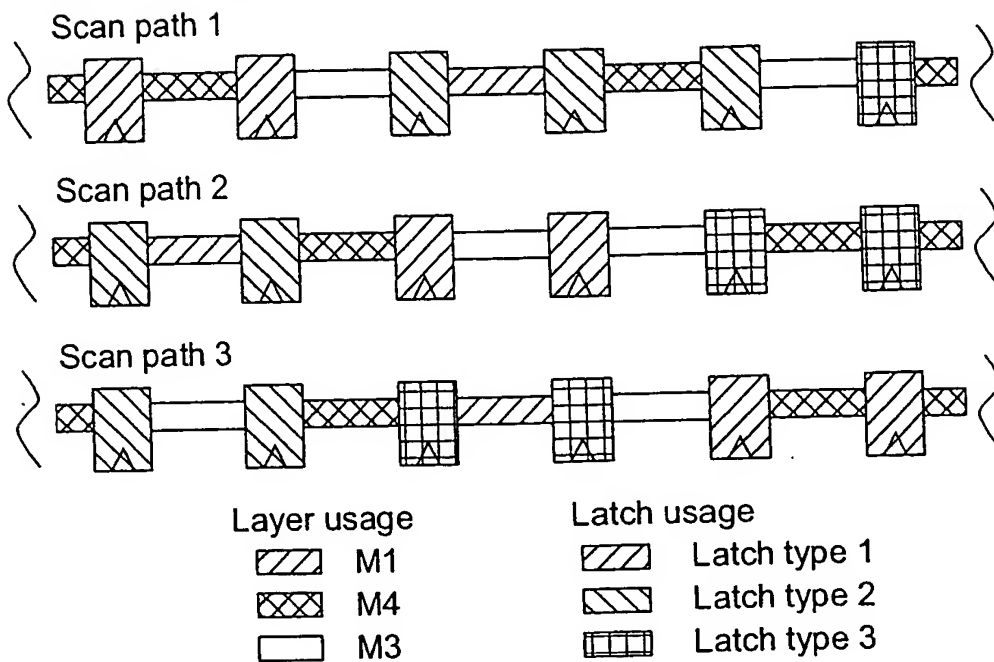
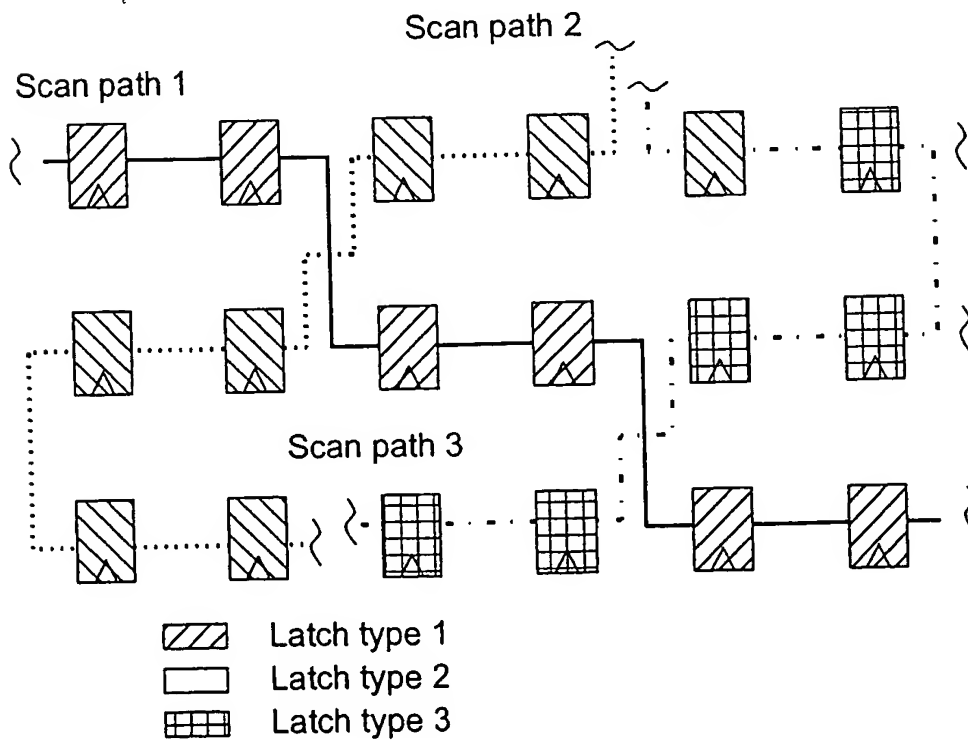
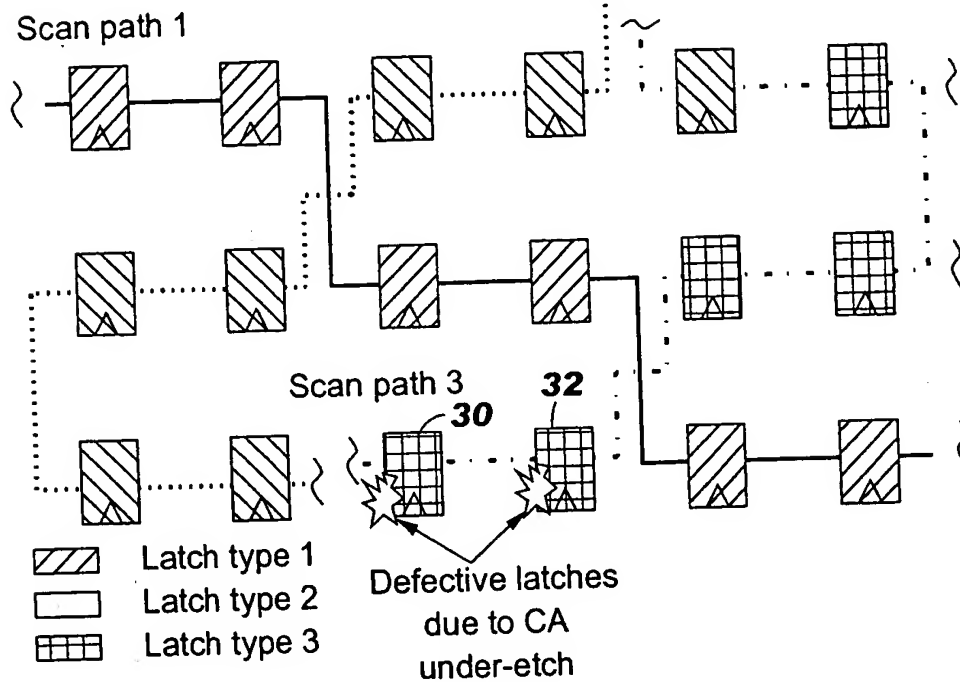


FIG. 2

Scan path chaining which groups latches of similar types



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FIG. 3Latch content optimized cell content with latch specific defect
Scan path 2**FIG. 4**

Scan paths using restricted wiring layers

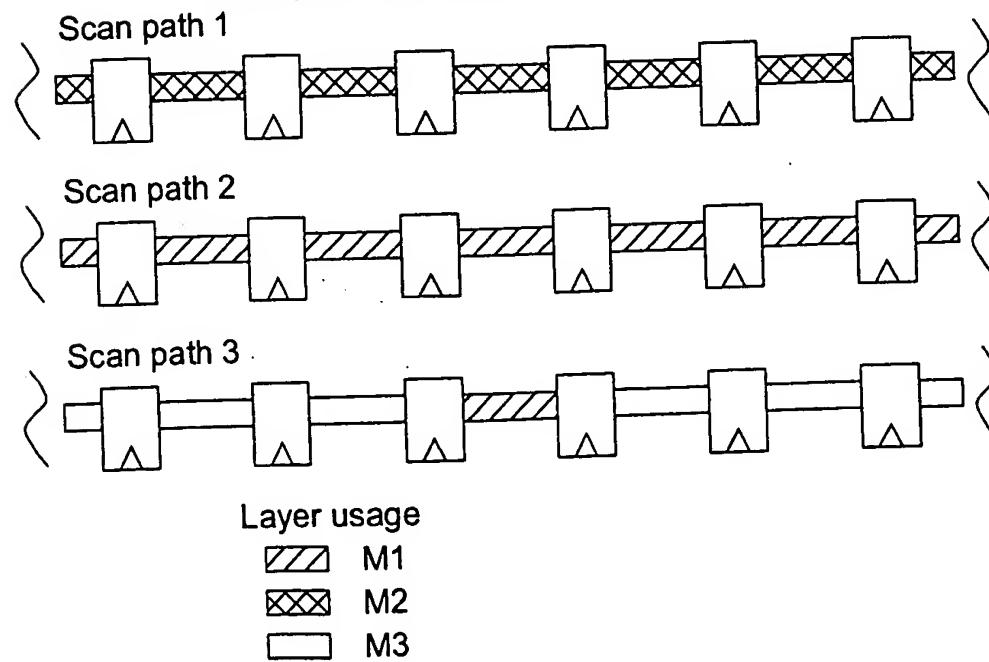
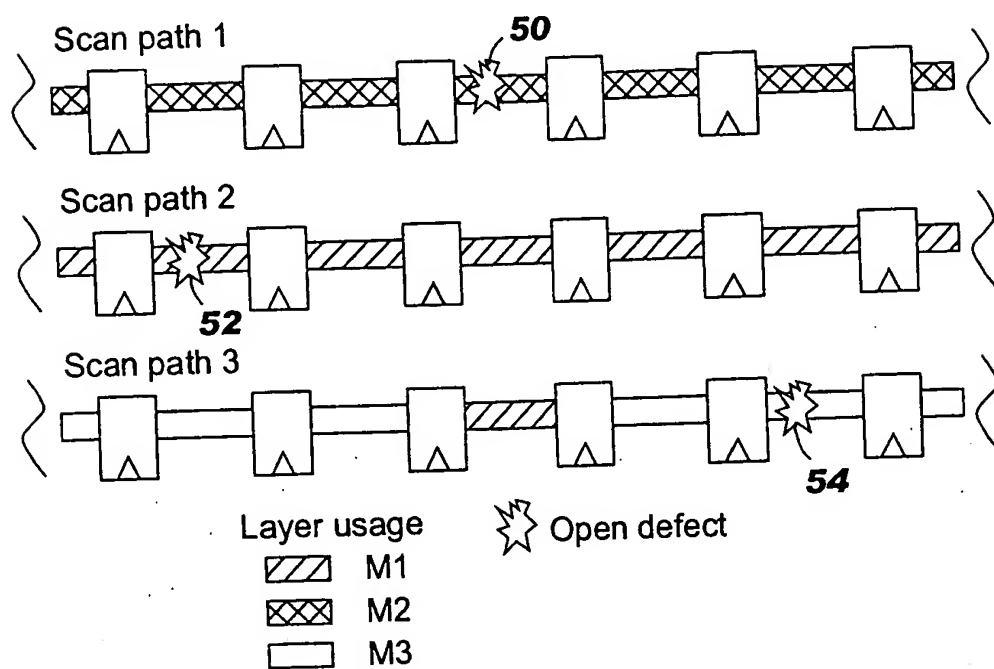
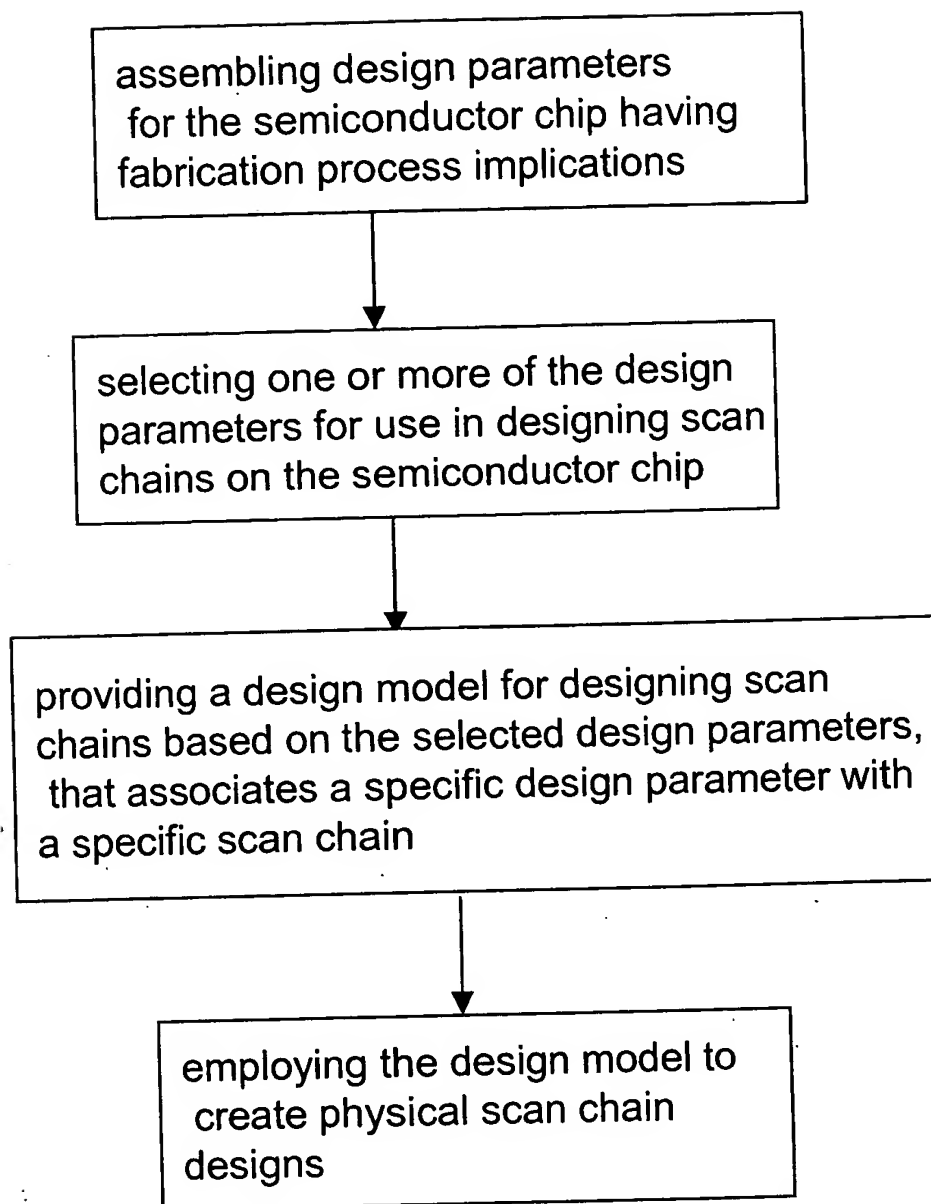


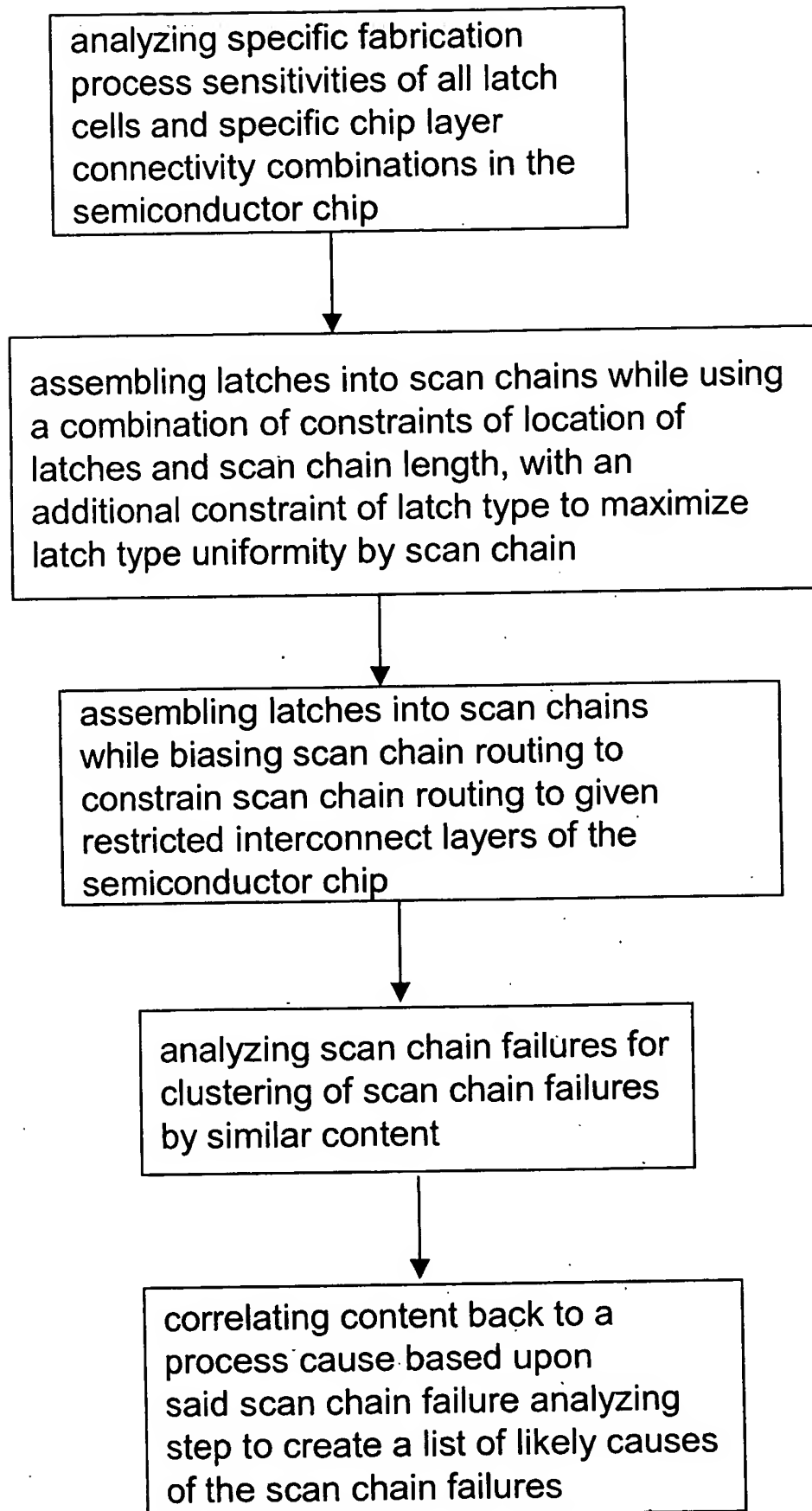
FIG. 5

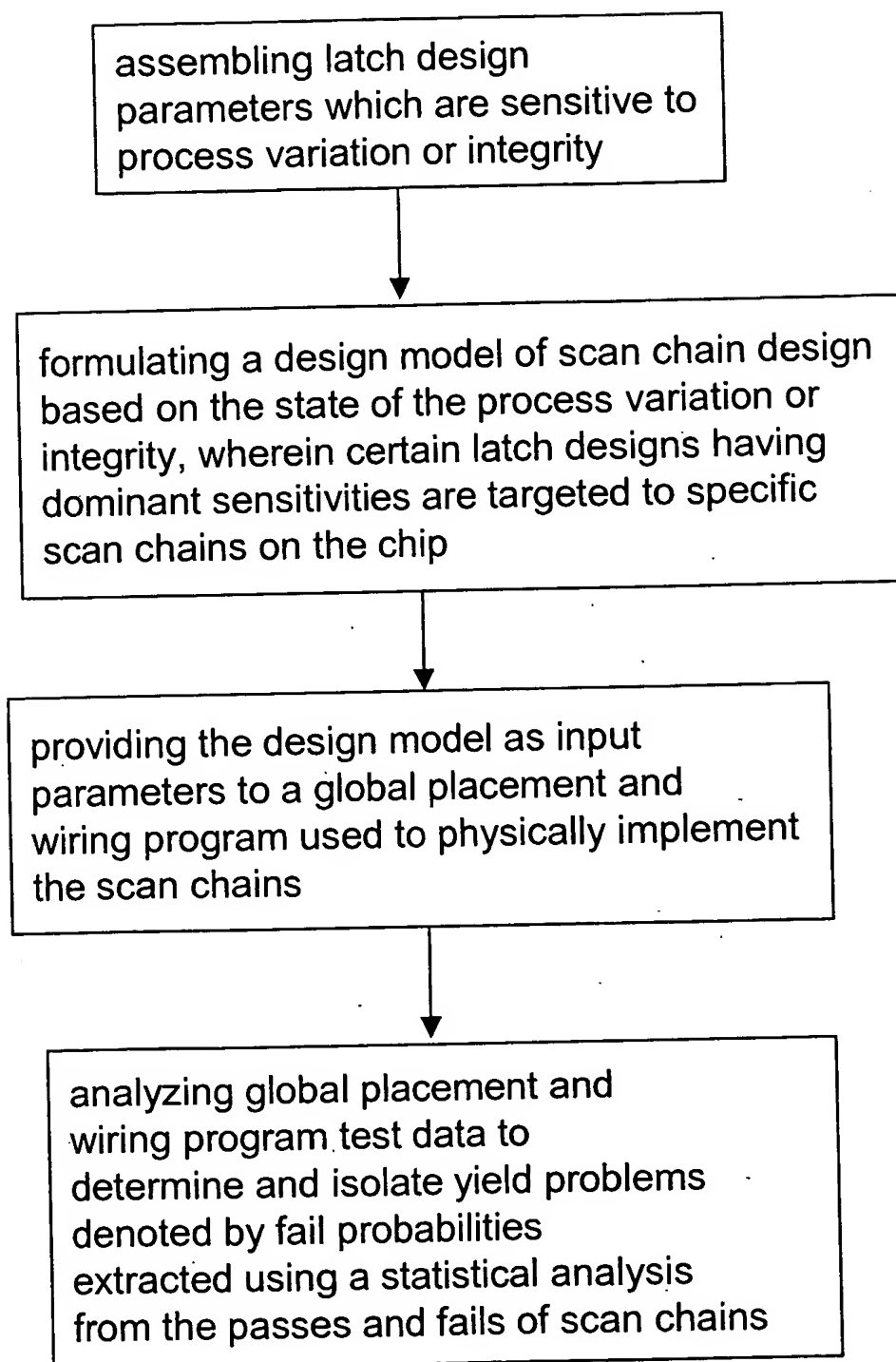
Layer optimized cell content with layer specific defects



**Fig. 6**

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**Fig. 7**

**Fig. 8**